

REMARKS

Claims 1, 3-7, 14-16, and 20-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,185,202 to Gockler, et al. (hereinafter, "Gockler"). Claim 1 is amended to include dependent claim 2 limitations indicated to be allowable. The second integrated circuit includes a de-multiplexer to de-multiplex the lower data rate data and the control information.

Claim 12 is rewritten in an independent form pursuant to the indication that claim 12 would be allowable. Accordingly, claim 12 is now in condition for allowance which is respectfully requested of the Examiner.

Claim 14 includes receiving analog data on a first integrated circuit device within a modem, multiplexing the serialized data with control information, transmitting the data to a second integrated circuit device within the modem, and de-multiplexing the data and control information within the second integrated circuit device. The Examiner acknowledges that the modem taught by the Gockler reference does not comprise two integrated circuit devices wherein multiplexing of serialized data with control information occurs in a first integrated circuit device and de-multiplexing of the data and control information occurs within the second integrated circuit device. Since such a teaching is absent in the Gockler reference, claim 14 is not rendered obvious. Accordingly, the Examiner is respectfully requested to reconsider the Section 103 rejection of claim 14.

Claims 8-10, 17-18, 23, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,404,804 to Mannering, et al. (hereinafter, "Mannering"). As amended, the asymmetric digital subscriber loop modem of claim 23 comprises a first integrated circuit including a serializer to multiplex lower data rate data with controlled information and a second integrated circuit including a de-serializer to de-multiplex the lower data rate data and the control information before transmitting the data to a device for demodulating the data.

However, the Mannering reference fails to teach an ADSL modem that allows data and control information to be multiplexed and de-multiplexed within two integrated circuits, respectively. In contrast, the claim 23 limitations now include multiplexing of lower data rate data with control information using a serializer and de-multiplexing of the same using a de-serializer. There is no teaching of the ADSL modem in which data is manipulated in the

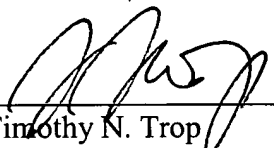
Manner reference, as claimed in claim 23. In this manner, a *prima facie* obviousness case of claim 23 is not made out because data is not transmitted between the two integrated circuits at a relatively high rate.

Instead, lower data rate data with control information is transmitted across integrated circuit chips, resulting in less buffering at each chip while needing less number of pins. In this way, the cost of each chip may be reduced. That is, as claimed in claim 23, the data rate of data is decreased before transmitting the data to a second integrated circuit device. Thus, claim 23 and claims depending therefrom are patentable over the cited art. The Examiner is requested to consider all pending claims.

In view of these amendments and remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

Date: June 14, 2004



Timothy N. Trop
Registration No. 28,994
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, Texas 77024
(713) 468-8880 [Phone]
(713) 468-8883 [Fax]

Customer No.: 21906